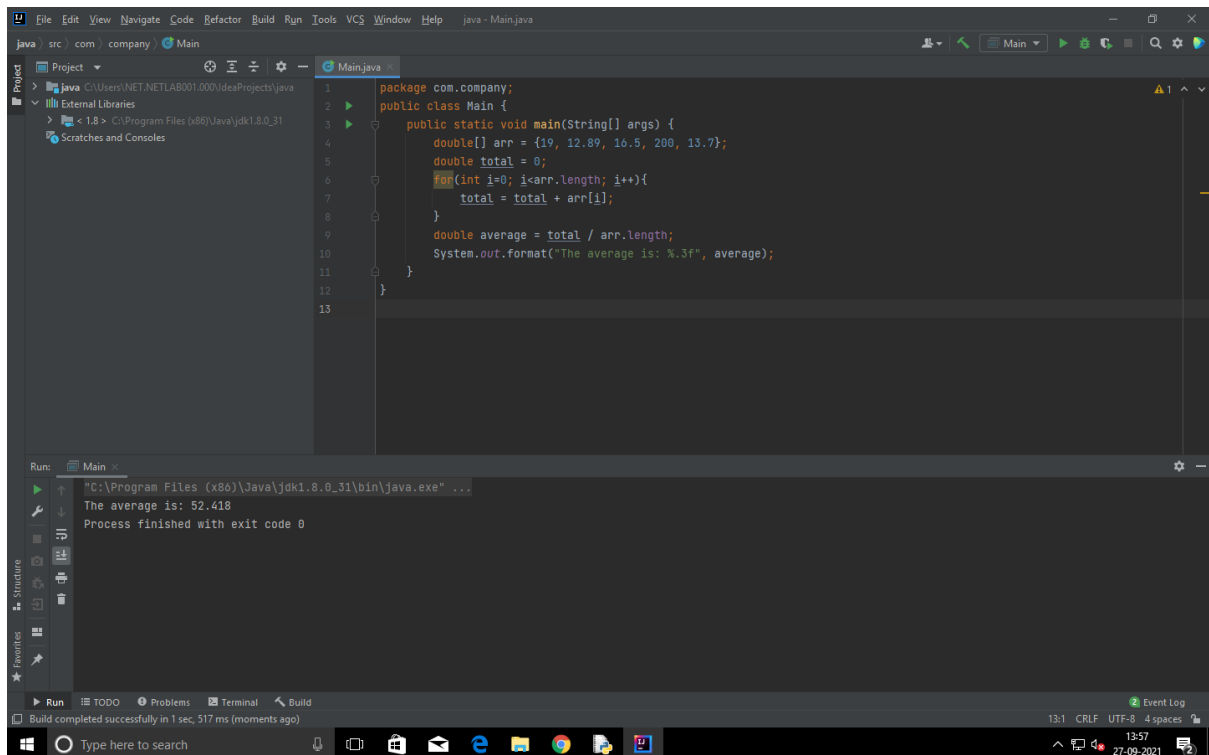


Program : 1

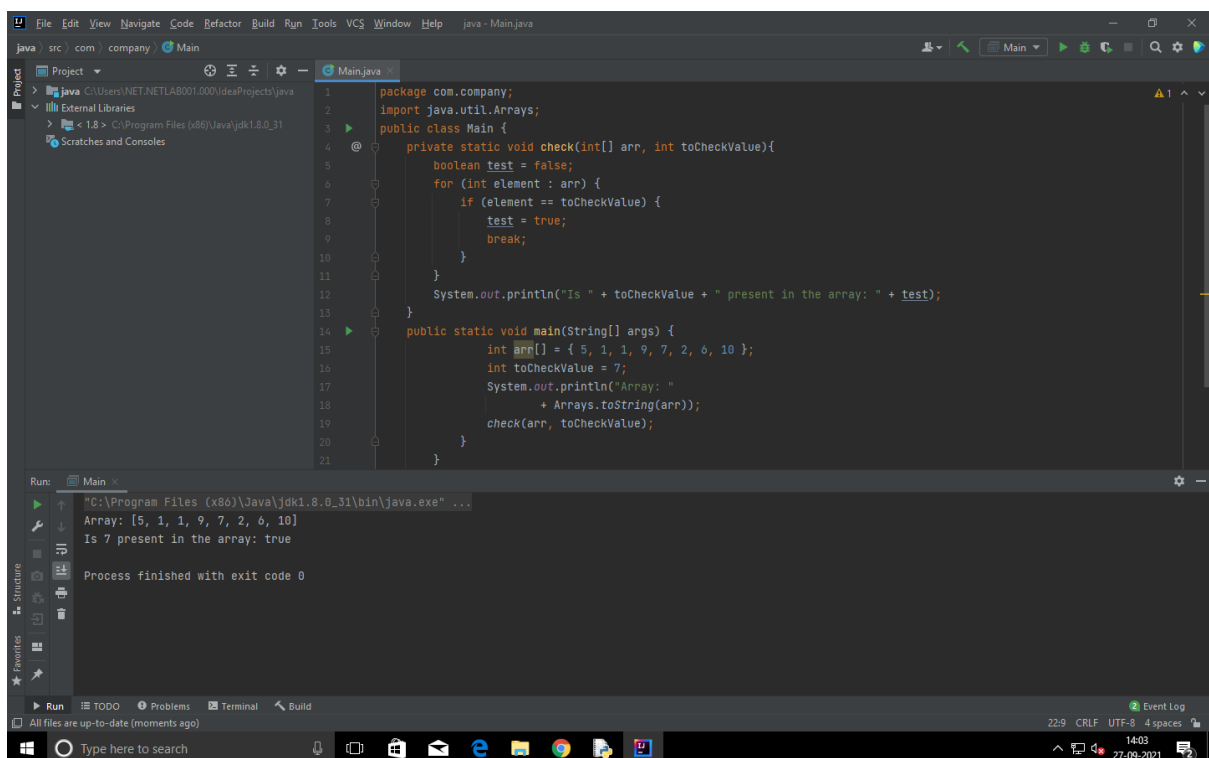


The screenshot shows an IDE with a project named 'Main'. The source file 'Main.java' contains the following code:

```
1 package com.company;
2 public class Main {
3     public static void main(String[] args) {
4         double[] arr = {19, 12.89, 16.5, 200, 13.7};
5         double total = 0;
6         for (int i=0; i<arr.length; i++){
7             total = total + arr[i];
8         }
9         double average = total / arr.length;
10        System.out.format("The average is: %.3f", average);
11    }
12 }
13
```

The Run window shows the output: "The average is: 52.418" and "Process finished with exit code 0".

Program : 2

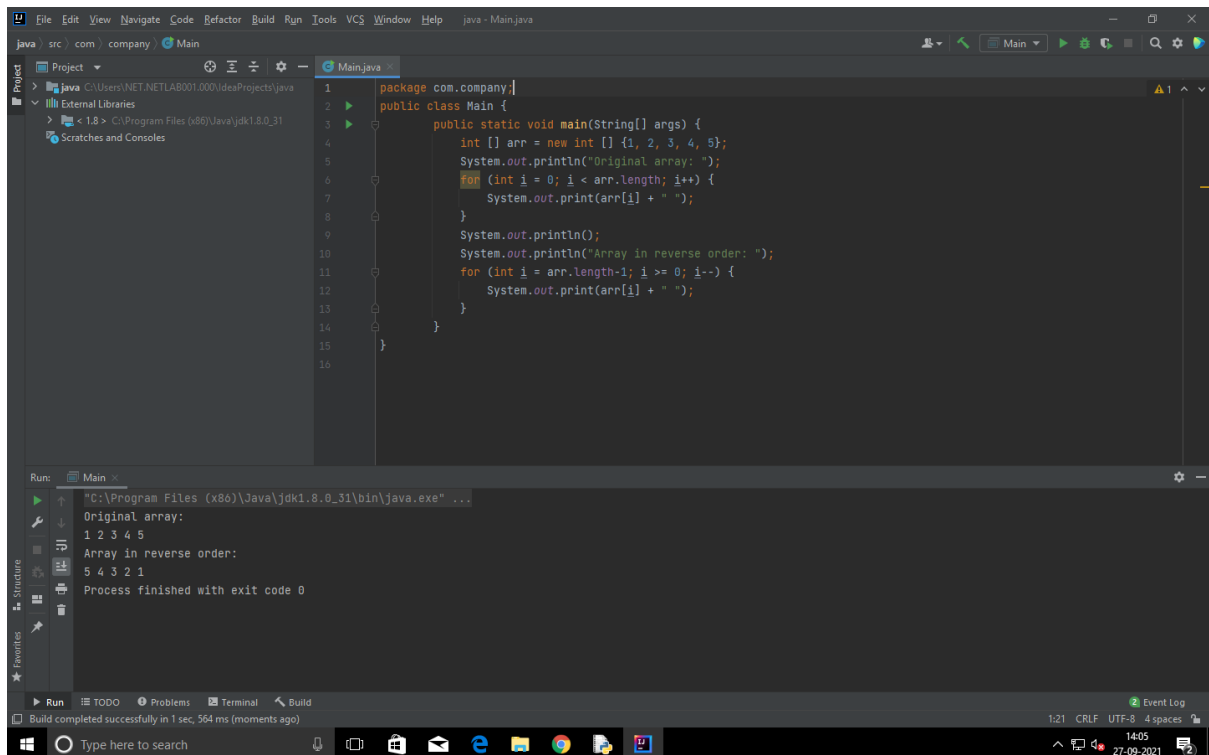


The screenshot shows an IDE with a project named 'Main'. The source file 'Main.java' contains the following code:

```
1 package com.company;
2 import java.util.Arrays;
3 public class Main {
4     private static void check(int[] arr, int toCheckValue){
5         boolean test = false;
6         for (int element : arr) {
7             if (element == toCheckValue) {
8                 test = true;
9                 break;
10            }
11        }
12        System.out.println("Is " + toCheckValue + " present in the array: " + test);
13    }
14    public static void main(String[] args) {
15        int arr[] = { 5, 1, 1, 9, 7, 2, 6, 10 };
16        int toCheckValue = 7;
17        System.out.println("Array: "
18            + Arrays.toString(arr));
19        check(arr, toCheckValue);
20    }
21 }
```

The Run window shows the output: "Array: [5, 1, 1, 9, 7, 2, 6, 10]" and "Is 7 present in the array: true".

Program : 3



The screenshot shows an IDE with a Java file named `Main.java`. The code defines a `public class Main` with a `main` method. It creates an integer array `arr` with values `{1, 2, 3, 4, 5}`. It prints the original array, then iterates through it in reverse order to print each element. The output window shows the execution results.

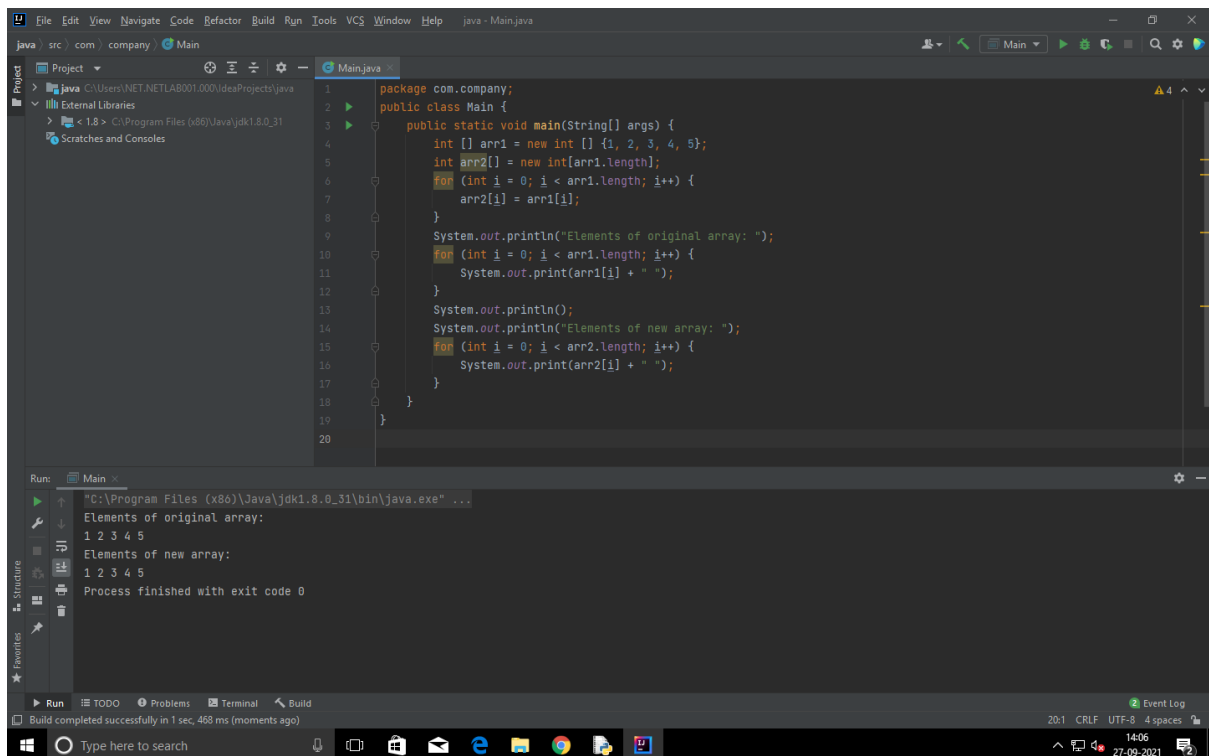
```
1 package com.company;
2 public class Main {
3     public static void main(String[] args) {
4         int [] arr = new int [] {1, 2, 3, 4, 5};
5         System.out.println("Original array: ");
6         for (int i = 0; i < arr.length; i++) {
7             System.out.print(arr[i] + " ");
8         }
9         System.out.println();
10        System.out.println("Array in reverse order: ");
11        for (int i = arr.length-1; i >= 0; i--) {
12            System.out.print(arr[i] + " ");
13        }
14    }
15 }
16
```

Run: Main

"C:\Program Files (x86)\Java\jdk1.8.0_31\bin\java.exe" ...

Original array:
1 2 3 4 5
Array in reverse order:
5 4 3 2 1
Process finished with exit code 0

Program : 4



The screenshot shows an IDE with a Java file named `Main.java`. The code defines a `public class Main` with a `main` method. It creates two integer arrays, `arr1` and `arr2`, both with values `{1, 2, 3, 4, 5}`. It prints the elements of `arr1`, then iterates through `arr2` to print each element. The output window shows the execution results.

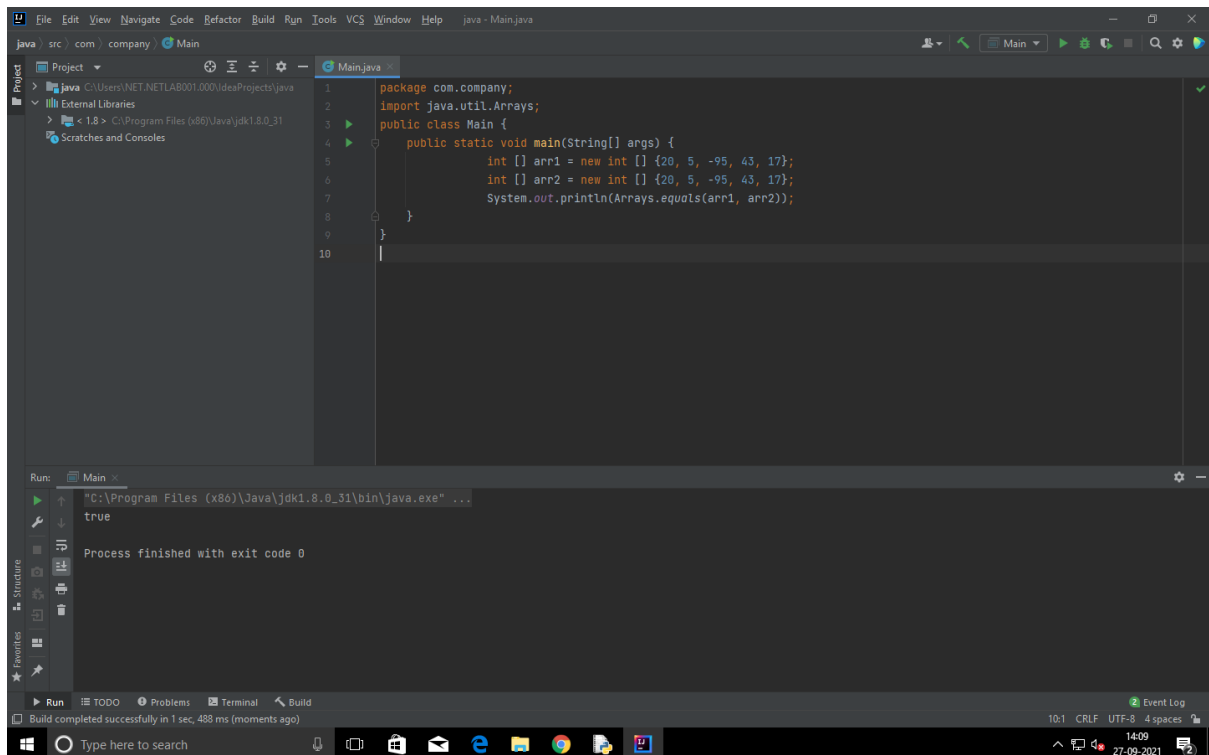
```
1 package com.company;
2 public class Main {
3     public static void main(String[] args) {
4         int [] arr1 = new int [] {1, 2, 3, 4, 5};
5         int [] arr2 = new int[arr1.length];
6         for (int i = 0; i < arr1.length; i++) {
7             arr2[i] = arr1[i];
8         }
9         System.out.println("Elements of original array: ");
10        for (int i = 0; i < arr1.length; i++) {
11            System.out.print(arr1[i] + " ");
12        }
13        System.out.println();
14        System.out.println("Elements of new array: ");
15        for (int i = 0; i < arr2.length; i++) {
16            System.out.print(arr2[i] + " ");
17        }
18    }
19 }
20
```

Run: Main

"C:\Program Files (x86)\Java\jdk1.8.0_31\bin\java.exe" ...

Elements of original array:
1 2 3 4 5
Elements of new array:
1 2 3 4 5
Process finished with exit code 0

Program : 5



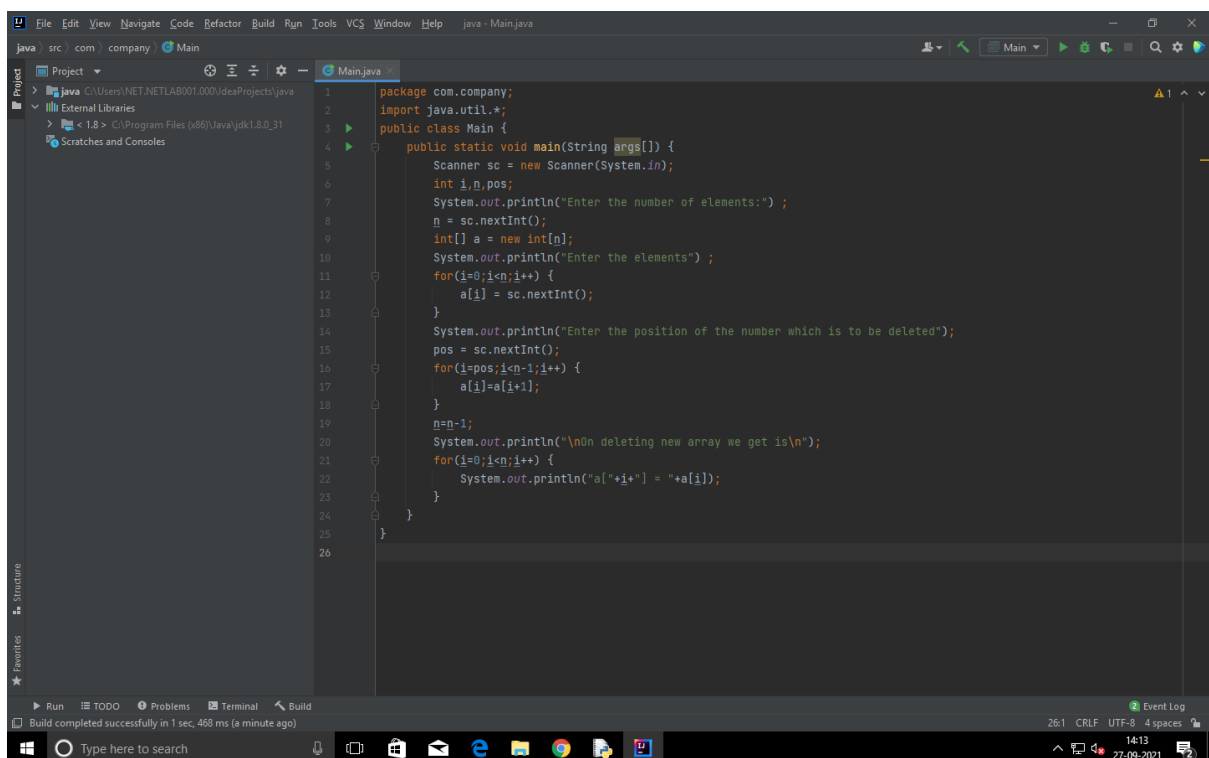
```
1 package com.company;
2 import java.util.Arrays;
3 public class Main {
4     public static void main(String[] args) {
5         int [] arr1 = new int [] {20, 5, -95, 43, 17};
6         int [] arr2 = new int [] {20, 5, -95, 43, 17};
7         System.out.println(Arrays.equals(arr1, arr2));
8     }
9 }
10
```

Run: Main

"C:\Program Files (x86)\Java\jdk1.8.0_31\bin\java.exe" ...
true

Process finished with exit code 0

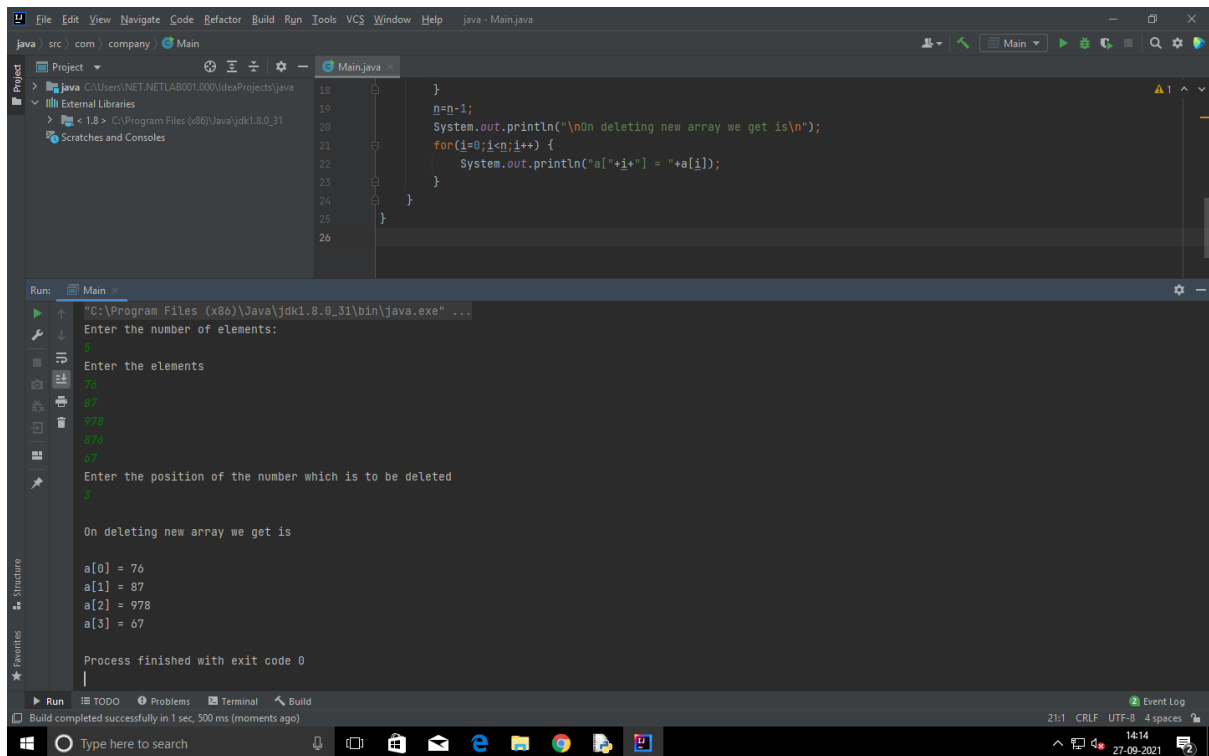
Program : 6



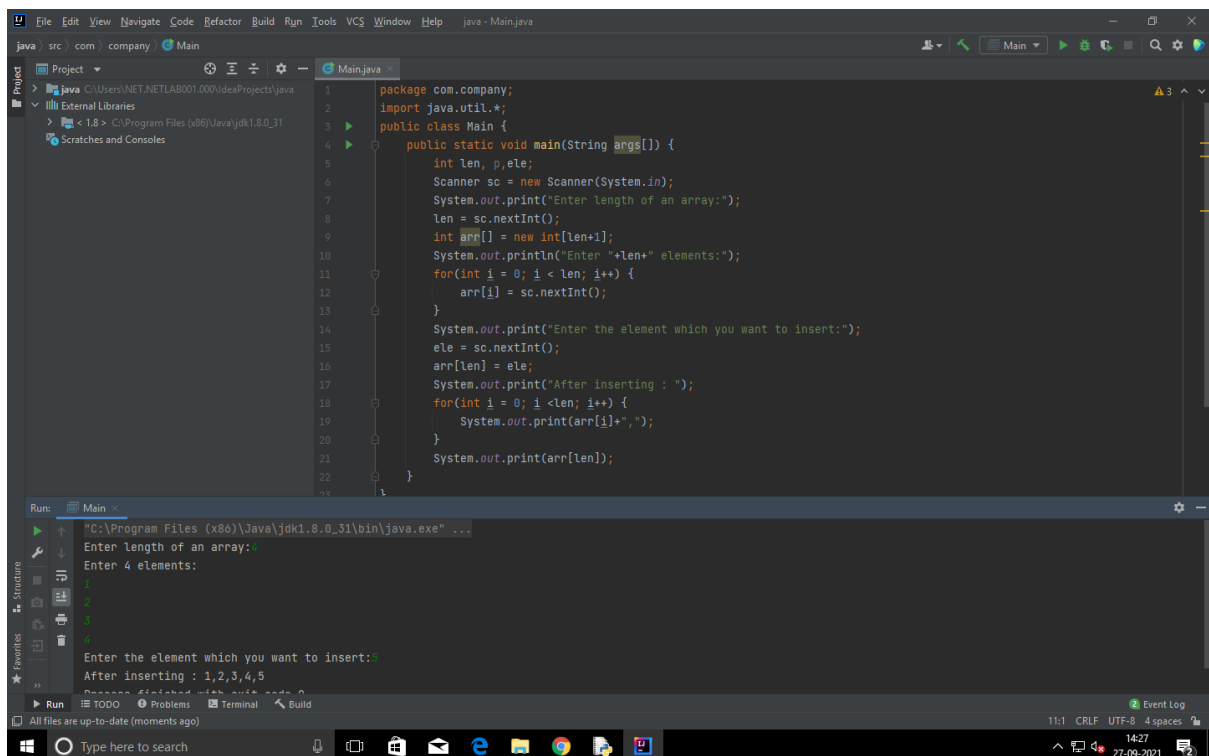
```
1 package com.company;
2 import java.util.*;
3 public class Main {
4     public static void main(String args[]) {
5         Scanner sc = new Scanner(System.in);
6         int i, n, pos;
7         System.out.println("Enter the number of elements:");
8         n = sc.nextInt();
9         int[] a = new int[n];
10        System.out.println("Enter the elements");
11        for (i=0; i<n; i++) {
12            a[i] = sc.nextInt();
13        }
14        System.out.println("Enter the position of the number which is to be deleted");
15        pos = sc.nextInt();
16        for (i=pos; i<n-1; i++) {
17            a[i]=a[i+1];
18        }
19        n=n-1;
20        System.out.println("\n\n deleting new array we get is\n");
21        for (i=0; i<n; i++) {
22            System.out.println("a["+i+"] = "+a[i]);
23        }
24    }
25 }
26
```

Run: Main

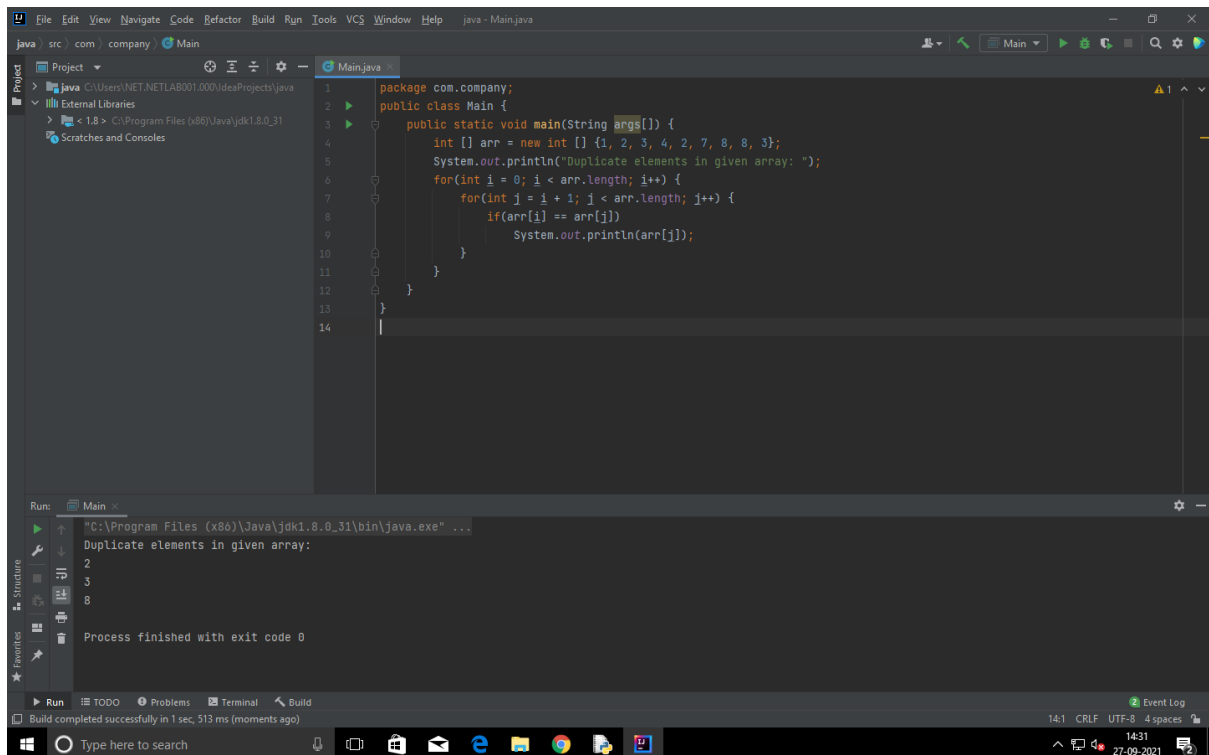
Build completed successfully in 1 sec, 488 ms (a minute ago)



Program : 7



Program : 8

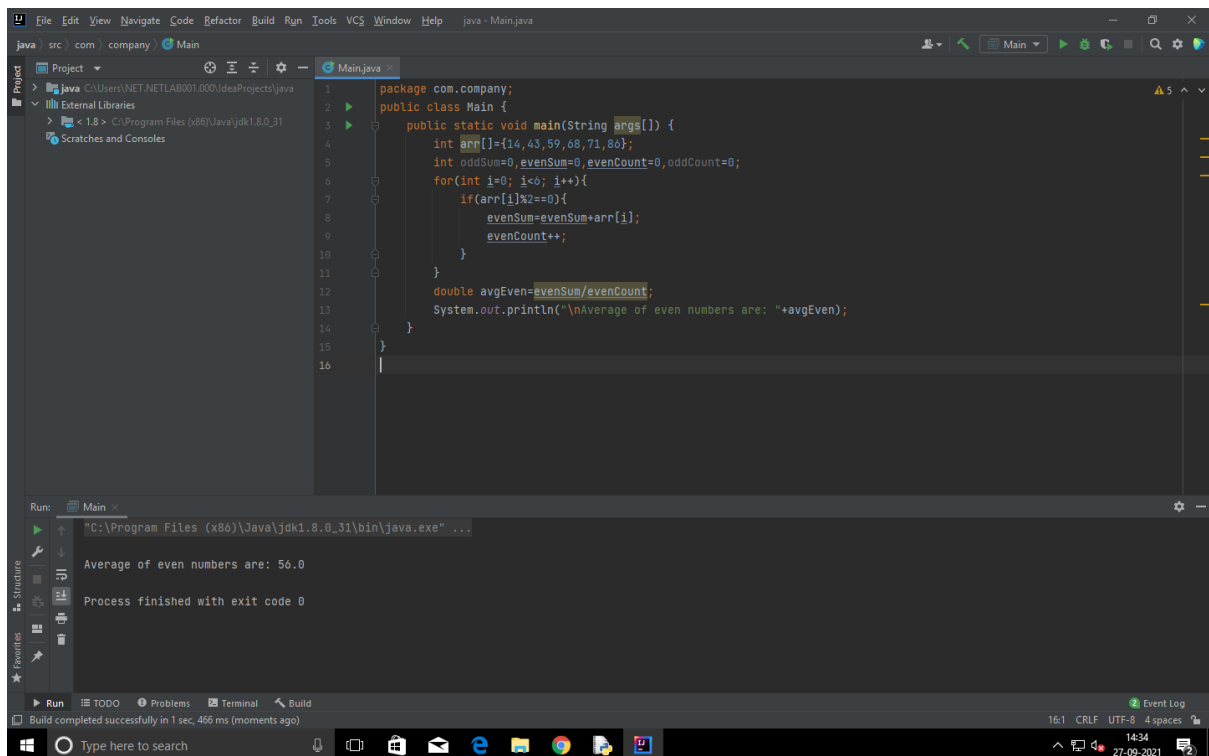


The screenshot shows an IDE with a Java project named 'Main'. The code in 'Main.java' is as follows:

```
1 package com.company;
2 public class Main {
3     public static void main(String args[]) {
4         int [] arr = new int [] {1, 2, 3, 4, 2, 7, 8, 8, 3};
5         System.out.println("Duplicate elements in given array: ");
6         for(int i = 0; i < arr.length; i++) {
7             for(int j = i + 1; j < arr.length; j++) {
8                 if(arr[i] == arr[j])
9                     System.out.println(arr[j]);
10            }
11        }
12    }
13 }
14
```

The Run console shows the output: "Duplicate elements in given array:" followed by "2", "3", and "8" on separate lines. The process finished with exit code 0.

Program : 9



The screenshot shows an IDE with a Java project named 'Main'. The code in 'Main.java' is as follows:

```
1 package com.company;
2 public class Main {
3     public static void main(String args[]) {
4         int arr[]={14,43,59,68,71,86};
5         int oddSum=0,evenSum=0,evenCount=0,oddCount=0;
6         for(int i=0; i<6; i++){
7             if(arr[i]%2==0){
8                 evenSum=evenSum+arr[i];
9                 evenCount++;
10            }
11        }
12        double avgEven=evenSum/evenCount;
13        System.out.println("\nAverage of even numbers are: "+avgEven);
14    }
15 }
16
```

The Run console shows the output: "Average of even numbers are: 56.0". The process finished with exit code 0.